

TABLE 3

Component	Control Ex. E	Example 15	Example 16	Example 17
Deltamethrin (mg)	0	0.87	0	0
Cypermethrin (mg)	0	0	2.81	0
Cyfluthrin (mg)	0	0	0	0.57
No. of Mosquitoes	140	135	120	130
Exposed Test Results				
Corrected Mortality Rate (%)	17*	57	84	63

*Uncorrected Mortality Rate

The test results in Table 3 demonstrate that the mortality rate can be maintained at about 50% or greater in a wet environment.

Example 18

The toxicity of a lethal mosquito breeding container according to Example 2 was calculated using published NOEL ("No Effect Level") data.

The NOEL for a rat over a 90 day period is 1 mg/kg/day of deltamethrin.

The NOEL for a 2 year old beagle is 1 mg/kg/day of deltamethrin.

Based on the published test data for beagles and rats, a 9 kg (about 20 pound) toddler could consume 10 lethal mosquito breeding containers, both egg laying structures and water, per day without showing any effect.

Test Method for Mortality Rate

A 1 cubic foot mosquito cage was used. The mosquitoes are given a blood meal at day 4 to 6 after post-emergence. At day 6 to 8, the mosquitoes are exposed to one the lethal mosquito breeding container according to the present invention having an insecticide applied to the egg laying structure and one control non-lethal mosquito breeding container having an untreated egg laying structure. The temperature is maintained at about 80° F. at a relative humidity of about 50%.

The mortality rate is determined by counting the number of deceased mosquitoes and live mosquitoes, adding these numbers together to arrive at the total number of mosquitoes exposed, and then dividing number of deceased mosquitoes by the total number of mosquitoes and multiplying that quotient by 100%. The mortality rate can be corrected using Abbott's formula as follows:

$$\left[\frac{(\% \text{ dead mosquitoes example}) - (\% \text{ dead mosquitoes control})}{(100\% - \% \text{ dead mosquitoes control})} \right] \times 100\%$$

Abbott's formula is described in, Abbott, "A method of computing the effectiveness of an insecticide", J. Econ. Entomol. 18, pages 265-67 (1925).

While the invention has been described in detail and with reference to specific embodiments thereof, it will be apparent to those of ordinary skill in the art that various changes and modifications can be made to the claimed invention without departing from the spirit and scope thereof.

What is claimed is:

1. A breeding container which is adapted to be lethal to container breeding mosquitoes comprising:

a stand-alone walled structure defining an internal volume, said walled structure being constructed and

arranged to contain a sufficient amount of aqueous liquid to attract female container breeding mosquitoes within at least a portion of said internal volume, said walled structure comprising at least one sidewall and a bottom wall supporting said at least one sidewall;

at least one opening in said walled structure disposed so as to allow mosquitoes to enter said walled structure; mosquito egg laying structure in said internal volume having a surface texture which is suitable for female container breeding mosquitoes to land on and lay eggs on and being constructed and arranged such that at least a portion of the mosquito egg laying structure is above a maximum level liquid when a liquid is placed in said walled structure; and

an insecticide that is lethal to mosquitoes present on said egg laying structure in an amount sufficient to kill said female mosquitoes in contact with said surface of said mosquito egg laying structure.

2. A breeding container according to claim 1, wherein said mosquito egg laying structure is integrally formed with said walled structure.

3. A breeding container according to claim 1, further comprising at least one liquid regulating opening in said walled structure disposed so as to limit the maximum level of liquid in said internal volume.

4. A breeding container according to claim 1, further comprising at least one liquid regulating notch in said walled structure disposed so as to limit the maximum level of liquid in said internal volume.

5. A breeding container according to claim 1, wherein said insecticide is lethal to mosquito larvae and is present in an amount to kill larvae when present in said internal volume.

6. A breeding container according to claim 1, wherein said insecticide comprises at least one pyrethroid.

7. A breeding container according to claim 1, wherein said insecticide comprises at least one pyrethroid selected from the group consisting of deltamethrin, cypermethrin, cyfluthrin, and lambda-cyhalothrin.

8. A breeding container according to claim 1, wherein said insecticide comprises at least one carbamate.

9. A breeding container according to claim 1, wherein said mosquito egg laying structure comprises a removable paddle.

10. A breeding container according to claim 9, wherein said paddle comprises paper having an exposed surface which can be held onto by a mosquito or which eggs can be supported thereon.

11. A breeding container according to claim 10, wherein said mosquito egg laying structure comprises a biodegradable paper.

12. A breeding container according to claim 1, wherein said walled structure is formed from a material selected from the group consisting of ceramic, glass, metal, paper, plastic, and wood.

13. A breeding container according to claim 1, wherein said walled structure is formed from plastic.

14. A breeding container according to claim 1, wherein said walled structure is formed from plastic having a color which is attractive to female mosquitoes.

15. A breeding container according to claim 1, wherein said walled structure is formed from plastic which is substantially black in color.

16. A breeding container according to claim 1, wherein said walled structure comprises a cup having at least one hole or notch in a side thereof.

17. A breeding container kit which is adapted to be lethal to mosquitoes comprising: